# PROJECT DESCRIPTION

#### **GENERAL**

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 2 (GOVERNOR RITCHIE HIGHWAY) AND MARLEY STATION ROAD/MARLEY STATION MALL ENTRANCE IN ANNE ARUNDEL COUNTY, MARYLAND. MODIFICATIONS INCLUDE THE INSTALLATION OF 16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEADS AND AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTONS FOR THE NORTH LEG OF MD 2 AND THE EAST AND WEST LEGS OF MARLEY STATION ROAD. MD 2 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

### INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 2 APPROACHES OPERATING CONCURRENTLY AND THE MARLEY STATION ROAD APPROACHES OPERATING SPLIT PHASED. PROTECTED LEFT-TURN PHASING IS PROVIDED FOR NORTHBOUND AND SOUTHBOUND MD 2. FIREHOUSE PRE-EMPTION IS PROVIDED FOR WESTBOUND MARLEY STATION ROAD.

NEW AUDIBLE PUSHBUTTON ACTUATED PEDESTRIAN PHASES WILL BE PROVIDED ACROSS THE NORTH LEG OF MD 2 AND THE EAST AND WEST LEGS OF MARLEY STATION ROAD.

APS MESSAGE FOR CROSSING OF MD 2 (GOVERNOR RITCHIE HIGHWAY) FROM NORTHEAST CURBSIDE:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS GOVERNOR RITCHIE AT MARLEY STATION. SECOND PUSHBUTTON IN MEDIAN. WAIT".
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE

APS MESSAGE FOR CROSSING OF MD 2 (GOVERNOR RITCHIE HIGHWAY) FROM NORTHWEST CURBSIDE:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS GOVERNOR RITCHIE AT MARLEY STATION. SECOND PUSHBUTTON IN MEDIAN. WAIT".
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

APS MESSAGE FOR CROSSING OF MD 2 (GOVERNOR RITCHIE HIGHWAY) FROM MEDIAN:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS GOVERNOR RITCHIE AT MARLEY STATION, WAIT".
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

APS MESSAGE FOR CROSSING MARLEY STATION ROAD:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS MARLEY STATION AT GOVERNOR RITCHIE, WAIT".
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

### CONTROLLER REQUIREMENTS

THE EXISTING NEMA SIZE '6' BASE MOUNTED CABINET AND EIGHT-PHASE CONTROLLER AND ALL ASSOCIATED EQUIPMENT WILL CONTINUE TO BE USED. A 2-WIRE CENTRAL CONTROL UNIT WILL BE ADDED TO THE CABINET.

## EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA:

ITEM NO. QUANTITY UNIT **DESCRIPTION** 

9570 [UPDATED] SHEET ALUMINUM GROUND MOUNTED SIGN

- 7 EACH R10-3(1) (9"x15")

## PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

ASSISTANT DISTRICT ENGINEER - TRAFFIC PHONE: (410) 841-1019

ASSISTANT DISTRICT ENGINEER - MAINTENANCE PHONE: (410) 841-1013

MR. ED RODENHIZER SUPERVISOR - SIGNAL SHOP PHONE: (410) 787-7650 ASSISTANT DISTRICT ENGINEER - UTILITY PHONE: (410) 841-1039

MR. RICHARD L. DAFF CHIEF, TRAFFIC OPERATIONS DIVISION PHONE: (410) 787-7630

## EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	<u>UNIT</u>	DESCRIPTION
2002	1	CY	TEST PIT EXCAVATION
5005	700	LF	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
8001	7	EA	FURNISH AND INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8002	3	EΑ	FURNISH AND INSTALL BREAKAWAY PEDESTAL POLE - ANY SIZE
8003	6	EA	FURNISH AND INSTALL 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
8005	1	EA	REMOVE AND DISPOSE PER ASSIGNMENT
8008	75	LF	FURNISH AND INSTALL UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8012	75	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8015	7.	SF	INSTALL GROUND MOUNTED SIGN
8020	1200	LF .	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8021	1000	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

## EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA: NONE.

WIRING DIAGRAM

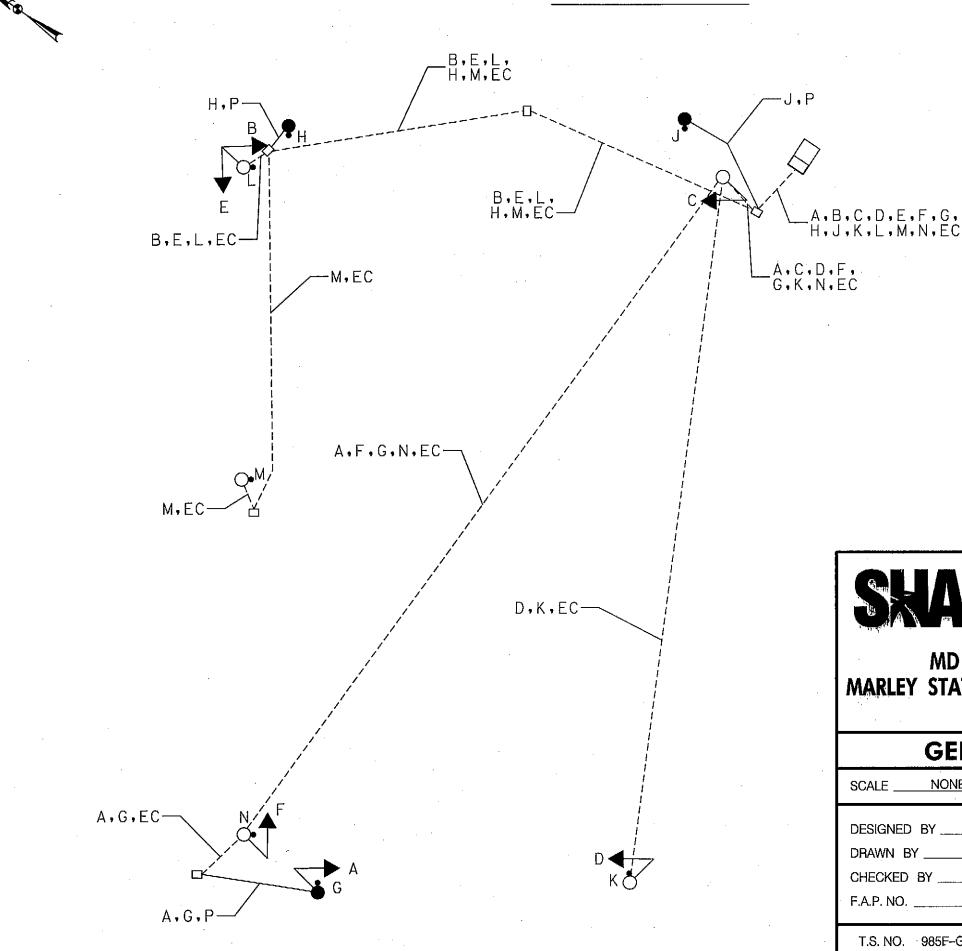
PHASE CHART

11 12 13 14 15 16 17 18 19 20 

PHASE I + 5	<b>←</b> G—	<b>←</b> G—	R	R	<b>←</b> -G	<b>←</b> G	R	R	R	R	R	R	R	R	DW	DW	DW.	DW	DW	DW	<u> </u>
I + 5 CHANGE	1+5	MAY	CHANGE	E TO F	PHASE	+ 6,	PHASE	2 + 5	OR F	PHASE	2 + 6				٠						
PHASE I + 6	<b>←</b> G	- <b>←</b> G—	G	G	<b>←</b> R—	<b>←</b> R—	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	
I + 6 CHANGE	<b>←</b> Y —	<b>←</b> Y	G	G	<b>←</b> R	<b>←</b> R—	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	, '₹
PHASE 2 + 5	<b>←</b> R	<b>←-</b> R	R	R	<b>←</b> G—	<b>←</b> G —	G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	<del>'</del> }
2 + 5 CHANGE	<b>←</b> R	<b>←</b> R —	R	R	<b>←</b> Y —	<b>←</b> Y —	G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	
PHASE 2 + 6	<b>←</b> R—	<b>←</b> R—	G	G	<b>←</b> R—	<b>←</b> R—	G	G	R	R	R	R	R	R	W	W	W	W	DW	DW	00
PED CLEARANCE	<b>←</b> R	<b>←</b> R	G	G	<b>←</b> R—	<b>←</b> R—	G	G	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	
2 + 6 CHANGE	<b>←</b> -R	<b>←</b> R—	Y	Υ	<b>←</b> R—	<b>←</b> R—	Υ	Υ	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	00
PHASE 3	<b>←</b> R—	R	R	R	<b>←</b> R—	<b>←</b> R	R	R	R	R	R	<b>G</b> —	<del>С</del> G—	G	DW	DW	DW	DW	DW	DW	
3 CHANGE	<b>←-</b> R	<b>←</b> R —	R	R	<b>←</b> R —	<b>←</b> R —	R	R	R	R	R	Y	Y	Υ	DW	DW	DW	DW	DW	DW	H
PHASE 3 ALT	<b>←</b> R—	<b>←</b> R—	R	R	<b>←</b> R —	<b>←</b> R—	R	R	R	R	R ·	<del>ა</del> ც—	 ტ	G	DW	DW	DW	DW	W	W	
PED CLEARANCE	<b>←</b> R—	←R—	R	R	<b>←</b> R —	<b>←</b> R	R	R	R	R	R	<b>~</b> G—	<del>↓</del> G—	G	DW	DW	DW:	DW	FL/DW	FL/DW	
3 ALT CHANGE	<b>←</b> R —	<b>←</b> R—	R	R	<b>←</b> R —	<b>←</b> R —	R	R	R	R	R	Y	Y	Υ	DW	DW	DW	DW	DW	DW	
PHASE 4	<b>←-</b> R	<b>←</b> R—	R	R	<b>←-</b> R	<b>←</b> R —	R	R	— G—	GG—	G	R	R	R	DW	DW	DW	DW	DW	DW	
4 CHANGE	<b>←</b> R —	<b>←</b> R —	R	R	<b>←</b> R —	<b>←</b> R—	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	DW	DW	H
FLASHING OPERATION	FL/ <del>«</del> R	FL/ <del>-</del> R	FL/Y	FL/Y	FL/ <del>∢</del> R	FL/ <del>←</del> R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	† <del> </del> <del> </del> <del> </del> <del> </del> <del> </del> <del> </del>

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WIRING KEY A,B,C, } 5 CONDUCTOR ELECTRICAL CABLE D,E,F } (NO. 14 AWG) G,H,J,K, } 2 CONDUCTOR ELECTRICAL CABLE L,M,M } (NO. 14 AWG) P STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG) EC ] EXISTING CABLE STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION MD 2 (GOVERNOR RITCHIE HIGHWAY) AT MARLEY STATION ROAD/MARLEY STATION MALL ENTRANCE GLEN BURNIE, MARYLAND GENERAL INFORMATION SHEET \_\_\_\_ DATE \_\_\_\_MAY\_29, 2012 \_\_\_\_ CONTRACT\_NO. \_\_\_\_AX6445378 ANNE ARUNDEL LOGMILE 02000234.76 T.I.M.S. NO.

SG-02 OF SG-02

SHEET NO. 6 OF 6

PLOTTED: Tuesday, May 29, 2012 AT 08:11 AM FILE: i:\5212 - tedd\28 - ada topa\design\engineering\planset\submittal 6\MD 2 at Marley Station\pSG=N001\_985E.dgm

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